Please cancel Claims 1, 10, 12, 15, and 16, without prejudice or disclaimer of subject matter. Please amend Claims 2-4, 6-8, 11, 13, and 14 as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

1. (canceled).

2. (currently amended): A wireless communication device comprising:

~~an interface unit adapted to receive a selection of a data processing function specified by an operator;~~

a network ~~first~~ detection unit adapted to detect a plurality of wireless networks ~~beacons at a plurality of frequencies~~;

a network connection unit adapted to connect to a wireless network detected by the network detection unit ~~a base station that transmitted a beacon detected by said detection unit, in accordance with network identification information included in the beacon detected by said first detection unit to search for a wireless communication device capable of performing the data processing function selected by the operator via the interface unit~~;

a printer searching ~~transmission~~ unit adapted to search ~~transmit a search signal for searching~~ for one or more printers having a predetermined print function within the wireless network connected to by the network connection unit ~~the wireless communication device capable of performing the data processing function selected by the operator via the interface unit, to a~~

~~wireless communication device connected to the base station connected to by said connection~~
~~unit;~~

~~a second detection unit adapted to detect, among one or more wireless~~
~~communication devices connected to the base station connected to by said connection unit, the~~
~~wireless communication device capable of performing the data processing function, based on a~~
~~response signal received in response to the search signal;~~

a display unit adapted to selectably display information associated with <u>one or</u>
<u>more printers detected by the printer search unit, every time the printer search unit detects one of</u>
<u>the one or more printers having the predetermined print function</u> ~~the wireless communication~~
~~device detected by said second detection unit so as to enable identification of a wireless~~
~~communication partner~~; and

a <u>printer connection</u> ~~control~~ unit adapted to, when ~~the~~ <u>an</u> operator selects <u>a printer</u>
<u>associated with</u> the information displayed by ~~said~~ <u>the</u> display unit, <u>terminate searching by the</u>
<u>printer search unit and connect to the selected printer</u> ~~while said first detection unit is performing~~
~~a detection process to detect the plurality of beacons, terminate the detection process of said first~~
~~detection unit, and perform connection processing with the wireless communication device~~
~~associated with the selected information~~.

3. (currently amended): The device according to claim 2, <u>further comprising</u>
~~wherein~~

<u>a storage</u> ~~said second detection~~ unit <u>that</u> stores, in a memory, identification
information of the <u>one or more printers detected by the printer searching unit</u> ~~wireless~~

~~communication device on a partner side included in the response signal, upon reception of the~~

~~response signal~~, and

wherein ~~the~~ said display unit selectably displays the identification information stored in the memory.

4. (currently amended): The device according to claim 2, wherein ~~each of the~~ wireless communication device ~~and the wireless communication partner is one of:~~ is an image sensing device~~, a device for executing a print process of a sensed image, and~~ or a storage device for executing a storage process of a sensed image.

5. (canceled).

6. (currently amended): The device according to claim 2, wherein, when the one or more printers having the predetermined print function are not detected, no signal is received in response to ~~the~~ a search signal within a predetermined period of time, and an error display is made.

7. (currently amended): The device according to claim 2, further comprising:

a determination unit adapted to determine if ~~the~~ a detected beacon signal ~~detected~~ ~~by said first detection unit~~ is in an ad hoc communication mode or in an infrastructure communication mode, and,

when ~~said~~ the determination unit determines that the detected beacon signal is in the ad hoc communication mode, the printer searching ~~said transmission~~ unit transmits ~~the~~ a

search signal for searching for the printer having the predetermined print function toward a

printer that sent ~~wireless communication processing device as a generation source of~~ the detected

beacon signal, and,

   when ~~said~~ the determination unit determines that the detected beacon signal is in

the infrastructure mode, the printer searching ~~said transmission~~ unit transmits the search signal

toward an access point that sent the detected beacon signal.

   8. (currently amended): The device according to claim 2, further comprising a

registration unit adapted to register, in a memory, information associated with the printer

connected to by the printer connected unit in accordance with an indication by the operator ~~a~~

~~connection to the partner wireless communication device, to which a wireless communication~~

~~has been established~~.

   9. (previously presented): The device according to claim 8, further including a

mode for executing a process for establishing a wireless communication based on the

information registered by said registration unit.

   10. (canceled)

   11. (currently amended): A wireless communication device comprising: ~~system~~

~~comprising first and second wireless communication devices, wherein~~

   ~~said first wireless communication device comprises:~~

~~an interface unit adapted to receive a selection of a processing function specified~~ ~~by an operator;~~

a beacon detection unit adapted to detect a beacon signal;

a searching unit adapted to search for a printer having a predetermined print function, wherein, when the detected beacon signal is sent by a wireless communication device in an ad hoc mode, the searching unit transmits a search signal for searching for the printer having the predetermined print function to the wireless communication device that sent the detected beacon signal, and, when the detected beacon signal is sent by an access point in an infrastructure mode, the searching unit transmits the search signal to an infrastructure network through the access point; and

~~a discrimination unit adapted to discriminate a type of device capable of~~ ~~performing the processing function selected by the operator via the interface unit;~~

~~a determination unit adapted to, when receiving beacons transmitted from devices~~ ~~on wireless networks, determine whether device identification information corresponding to the~~ ~~type discriminated by said discrimination unit is included in the received beacons; and~~

a display unit adapted to[[,]] selectably display information associated with a printer that responded to the search signal. ~~each device that transmitted a beacon including the~~ ~~device identification information corresponding to the type discriminated by said discrimination~~ ~~unit, and not to display information associated with each device that transmitted a beacon not~~ ~~including the device identification information corresponding to the type discriminated by said~~ ~~discrimination unit, and~~

~~said second wireless communication device comprises:~~

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an informing unit adapted to include device identification information indicating the processing function into a beacon and transmitting the beacon to the wireless network, and

when information of said second wireless communication device among information displayed by said display unit is selected, a process for establishing a communication between said first and second wireless communication devices is performed.

12. (canceled).

13. (currently amended): A method performed by a wireless communication device, the method comprising:

receiving a selection of a data processing function specified by an operator via an interface unit;

detecting a plurality of wireless networks beacons at a plurality of frequencies;

connecting to a wireless network detected by the network detection unit base station that transmitted a detected beacon, in accordance with network identification information included in the detected beacon to search for a wireless communication device capable of performing the data processing function selected by the operator;

searching transmitting a search signal for searching for one or printer having a predetermined print function within the wireless network the wireless communication device capable of performing the data processing function selected by the operator via the interface unit, to a wireless communication device connected to the network connected to; and

displaying information associated with one or more printers detected by the printer search unit, every time the printer search unit detects one of the one or more printers having the predetermined print function; and

when a printer associated with the displayed information is selected, terminating the searching and connecting to the selected printer.

~~detecting, among one or more wireless communication devices connected to the base-station connected to, the wireless communication device capable of performing the data processing function selected by the operator via the interface unit, based on a response signal received in response to the search signal;~~

~~selectably displaying information associated with the wireless communication device detected to be capable of performing the data processing function selected by the operator via the interface unit so as to enable identification of a wireless communication partner; and,~~

~~when the operator selects the information displayed while a detection process is being performed to detect the plurality of beacons, terminating the detection process and performing connection processing with the wireless communication device associated with the selected information~~

14. (currently amended): A method performed by a wireless communication device, ~~which has a memory for storing device information and network identification information associated with a partner wireless communication device that has been connected to previously, which is configured to switch between a history search mode and a new search mode, and which performs a communication process in each mode, wherein, in the history search mode, the wireless communication device communicates with the partner wireless~~

~~communication device associated with the device information stored in the memory, and~~

~~wherein, in the new search mode, the wireless communication device communicates with a~~

~~newly searched for partner wireless communication device,~~ the method comprising:

~~determining an operator's instruction that instructs one of the history search mode~~ ~~and the new search mode;~~

~~performing, in the new search mode, a beacon detection process of~~ detecting a beacon signal ~~plurality of beacons;~~

searching for a printer having a predetermined print function;

when the detected beacon signal is sent by a wireless communication device in an ad hoc mode, transmitting a search signal for searching for the printer having the predetermined print function to the wireless communication device that sent the detected beacon signal; and,

when the detected beacon signal is sent by an access point in an infrastructure mode, transmitting the search signal to an infrastructure network through the access point; and

selectably displaying information associated with a printer that responded to the search signal.

~~comparing network identification information included in a detected beacon with~~ ~~the network identification information stored in the memory;~~

~~when there is a match in the compared network identification information,~~ ~~continuing the detection process to detect another beacon, and~~

~~when the detected beacon includes new network identification information,~~ ~~searching a network configured by a base station that transmitted the detected beacon for a new~~ ~~partner wireless communication device, based on the new network identification information;~~

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in the new search mode, selectably displaying device identification information associated with the new partner wireless communication device found on a display unit;

selectably displaying the device identification information associated with the wireless communication device stored in the memory on the display unit, when the operator has instructed the history search mode; and

performing, when device identification information that is displayed is selected, a wireless communication establishment process with the wireless communication device associated with the selected device identification information.

15. and 16. (canceled).